

AMENDMENTS TO THE CLAIMS:

This listing of claims will replace all prior versions and listings of claims in the application:

1. (Currently Amended) An apparatus for separating soil, the apparatus comprising:

a frame having a length defined between a first end of the frame and a second end of the frame;

an axle connected to the frame between the first end of the frame and the second end of the frame wherein the axle has a length defined between a first end of the axle and a second end of the axle;

a piston and cylinder assembly including a cylinder connected to the frame and a movable piston rod connected to the axle;

a pillar connected to the frame and a column inside the pillar and extending to the axle;

discs attached to the frame on opposite sides of the axle wherein at least one of the discs adjacent to the first ~~side~~end of the frame is non-parallel with respect to at least one of the discs adjacent to the second ~~side~~end of the frame, wherein the discs are located between the frame and the soil, and further wherein the discs rotate upon contact with the soil; and

a controller associated with the piston and cylinder assembly and configured to control movement of the frame via the piston and cylinder assembly to move the discs with the frame and to move the frame and the discs with respect to the axle.

2. (Previously Presented) The apparatus of claim 1, including:

a hitch assembly having a length defined between an end of the hitch and a connector of the hitch wherein the end of the hitch is attached to the frame;
and

a hydraulic piston and cylinder assembly connected between the hitch assembly and the frame and configured to pivot the frame about the axle.

3. (Cancelled).

4. (Previously Presented) The apparatus of claim 1, including:

a liner attached to the pillar and located between the column and the pillar.

5. (Previously Presented) The apparatus of claim 4, further including:

plates located inside the pillar and configured to retain the liner.

6. (Cancelled).

7. (Previously Presented) The apparatus of claim 2, wherein the connector is configured to rotate in first and second opposite directions.

8. (Previously Presented) The apparatus of claim 1, including:

at least one wheel connected to the axle and configured to support the frame.

9. (Previously Presented) The apparatus of claim 8, further including:

a plug in the at least one wheel and configured to provide access to an oil bath.

10-40. (Cancelled).

41. (Previously Presented) The apparatus of claim 4, wherein the liner is formed of plastic and at least partially covers the interior of the pillar.

42. (Previously Presented) The apparatus of claim 1, further including two pillars connected to the frame, and a column inside each pillar and extending to the axle.

43. (Previously Presented) The apparatus of claim 42, further including a bar extending between the two pillars, and wherein the cylinder of the piston and cylinder assembly is connected to the bar.

44. (Previously Presented) The apparatus of claim 2, wherein the controller is further configured to control the hydraulic piston and cylinder assembly connected between the hitch assembly and the frame.

45. (Previously Presented) The apparatus of claim 2, wherein the hydraulic piston and cylinder assembly connected between the hitch assembly and the frame is configured to automatically adjust to respond directly to changes in terrain.

46. (New) An apparatus for separating soil, the apparatus comprising:
a frame having a length defined between a first end of the frame and a second end of the frame, and having a width;

an axle connected to the frame between the first end of the frame and the second end of the frame wherein the axle has a length defined between a first end of the axle and a second end of the axle, and extending in a direction of the width of the frame;

two laterally spaced vertical pillars attached to the frame and connected by a transverse bar;

a column inside each pillar and attached to the axle;

a piston and cylinder assembly connected between the transverse bar and the axle;

a first plurality of discs adjacent the first end of the frame, and a second plurality of discs adjacent the second end of the frame, wherein at least one of the plurality of discs adjacent to the first end of the frame is non-parallel with respect to at least one of the plurality of discs adjacent to the second end of the frame, and wherein the first and second plurality of discs are rotatable and located between the frame and the soil; and

a controller associated with the piston and cylinder assembly and configured to control movement of the frame via the piston and cylinder assembly to move the columns relative to the pillars and to move the frame and the discs relative to the axle.

47. (New) The apparatus of claim 46, including:

a hitch assembly attached to the frame; and

a hydraulic piston and cylinder assembly connected between the hitch assembly and the frame and configured to pivot the frame about the axle.

48. (New) The apparatus of claim 46, including a liner attached to the interior of each pillar between the column and the pillar.

49. (New) The apparatus of claim 48, wherein the liner is plastic.

50. (New) An apparatus for separating soil, the apparatus comprising:

- a frame having a front and a rear;
- a first set of rotatable discs attached adjacent the front of the frame and a second set of rotatable discs attached adjacent the rear of the frame, the first set of discs being non-parallel relative to the second set of discs;
- a plurality of hollow vertical columns laterally spaced and fixed on the frame;
- a pillar movably mounted within each hollow vertical column, each pillar connected at a lower end to an axle including spaced ground engaging wheels;
- a piston and cylinder assembly connected between the frame and the axle and configured to move the pillars relative to the columns and to move the axle relative to the frame; and
- a controller configured to control movement of the piston and cylinder assembly.

51. (New) The apparatus of claim 50, wherein the plurality of hollow vertical columns includes two hollow vertical columns, and wherein the apparatus further includes a transverse bar connecting the two hollow vertical columns adjacent upper portions thereof.

52. (New) The apparatus of claim 51, wherein the piston and cylinder assembly includes a cylinder connected to the transverse bar, and a piston rod connected to the axle.

53. (New) The apparatus of claim 50, including a plastic liner attached to the interior of each pillar between the column and the pillar.